REMARKS

Claim 1 has been amended to add the limitation of claim 2, that the pendant moiety is linked at the reducing terminal unit of the polysaccharide. Therefore, claim 2 has been canceled as redundant and claim 3 has been canceled as inconsistent with the limitation now in claim 1. The wording of claim 1 has been altered slightly, simply for clarity, as has the wording of claims 4-6. Claim 7 has been amended to conform to the limitation of claim 1 by deleting the option set forth in part (b).

Claim 9 has been corrected to obviate the rejection for lack of written description resulting from an obvious typographical error. Claims 11-20 have been canceled as directed to non-elected inventions. Claims 21 and 22 have been retained, as they reflect a process for using the elected compositions and would properly be rejoined should the composition claims be allowed (MPEP § 821.04(b)). New claims 30-31 have been added; these claims are similar to claim 10 but depend from claims 6 and 8, respectively.

It is apparent that no new matter has been added and entry of the amendment is respectfully requested.

The invention provides compounds that are capable of reacting with proteins so that the polysaccharide is appended in a manner analogous to naturally occurring glycoproteins. None of the prior art documents suggest preparing compounds that will provide this result, as both of the cited documents describe polysaccharide derivatives that result in coupling of a non-reducing terminus of the polysaccharide to a protein, as will be further delineated below.

Election / Restrictions

Applicants are grateful to the Examiner for rejoining Groups I and II. Non-elected claims (11-20) have been canceled. Only two non-elected claims (20-21) have been retained, as applicants believe they are subject to rejoinder should the composition claims be allowed.

Specification

Applicants appreciate the Examiner's calling their attention to the obvious typographical error in this paragraph. This has been corrected.

The Rejection Under 35 U.S.C. § 112, Paragraph 1

Claim 9 was rejected on this basis, reflecting the same typographical error. This has been corrected so as to obviate this basis for rejection.

The Rejection Under 35 U.S.C. § 103

Claims 1-8, 10 and 23-24 were rejected as assertedly unpatentable over Gregoriadis, *et al., Cellular & Molecular Life Sciences* (2000) 57:1964-1969 in combination with Ashkenazi, *et al.* (U.S. 5,329,028).

As the Examiner kindly acknowledges, Gregoriadis discloses only conjugates where a functional moiety is provided at a non-reducing terminus of a polysialic acid. There is no suggestion anywhere in Gregoriadis that coupling should be effected at the reducing terminus.

The basis on which the Office combines Ashkenazi does not overcome this deficiency. Ashkenazi is cited as disclosing bifunctional crosslinking agents that conjugate carbohydrates to thiol-containing proteins.

Ashkenazi does not suggest appending a functional group to the reducing terminus, as now required by the claims. As noted in column 15, at lines 30, *et seq.*, the reaction to form a conjugate the MPBH involves first, "oxidation of vicinal diols in the glycoprotein to generate aldehydes in the oligosaccharide portion followed by reaction of the aldehydes with the hydrazide of the MPBH reagent," etc. Thus, it is the non-reducing terminus of the relevant polysaccharide that is employed.

And it is only the non-reducing terminus of the relevant polysaccharide that it is possible to employ in this case. The saccharide employed in the exemplification described in Ashkenazi is the oligosaccharide associated with soluble CD4; apparently the object is to couple this particular molecule to other functional groups such as antibody-type molecules, etc. (column 2, lines 42, *et seq.*).

As noted above, in native glycoproteins, the reducing terminus is already occupied by having been coupled to the protein. In any event, the focus of the Ashkenazi disclosure is the specific bifunctional linker as evidenced by the claims and there is no teaching in Ashkenazi that the reducing terminus of a polysaccharide should be employed.

As noted above, this distinction is important because this form of derivitization provides a configuration most analogous to that of glycosylated proteins. Such an approach would not be possible in Ashkenazi as the substrate polysaccharide is, itself, glycosylating a protein.

Thus, there is no teaching in either Gregoriadis or Ashkenazi of coupling the pendant moiety having a functional group to the reducing terminus. Applicants believe that original claim 2 was included in the rejection in error and that the claims, as they now stand, are clearly patentable over the cited art.

Conclusion

Applicants have shown that claim 1, as amended, is neither described nor suggested by either Gregoriadis or Ashkenazi alone or in combination. Accordingly, claim 1 and claims 4-10, 23-24 and 30-31, ultimately dependent thereon, are in a position for allowance. As this is the case, claims 21 and 22 may properly be rejoined and passed to issue as well.

Should minor issues remain that could be resolved over the phone, a telephone call to the undersigned would be greatly appreciated.

In the unlikely event that the transmittal letter is separated from this document and the Patent Office determines that an extension and/or other relief is required, applicants petition for any required relief including extensions of time and authorize the Commissioner to charge the cost of such petitions and/or other fees due in connection with the filing of this document to **Deposit Account No. 03-1952** referencing docket No. 429022001300.

Respectfully submitted,

Dated: March 16, 2009 By: / Kate H. Murashige /

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